Comment on the proposed conservation of the usage of the generic name of *Drosophila* Fallén, 1823 (Insecta, Diptera)

(Case 3407; see BZN **64**: 238–242, **65**: 55–56, 137–150, 214–215, 304–307)

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The nomenclature of the genera related to *Drosophila,* as used in recent taxonomic papers, is based on the paper of Sturtevant (1942). However, Throckmorton (e.g. 1962) and subsequent authors recognised that the taxonomic relationships within the group are partly different and showed them on cladograms, without suggesting nomenclatural changes. Now it is quite apparent that the conception of Throckmorton is, in principle, correct and its modifications are presently discussed. After forty seven years, time is now more than mature to reflect the changes in the nomenclature. If the Commission maintains *Drosophila funebris* (Fabricius, 1787) as type species of the genus *Drosophila* Fallén, there are two possibilities how to reflect the situation: 1. *Sophophora* Sturtevant, 1939 would be elevated to the rank of genus and consequently many geneticists, physiologists, etc. would have to adopt the name *Sophophora melanogaster* for their favourite research subject. 2. Alternatively, more than ten currently independent genera would be connected with the genus *Drosophila* (see comment by P. Štys, BZN **65**(2): 144). In this case, the currently independent genera *Scaptomyza*, with about fifteen subgenera, and probably *Hypselothyrea, Phorticella* and *Zaprionus*, with two subgenera each, would become part of the genus *Drosophila*. It is evident that the names of these genera, and/or their subgenera, could not then be used as genus-group names.

On the other hand, accepting the proposition to use the name *Drosophila* s. s. for the genus based on *D. melanogaster* Meigen,1830 would also bring various constraints, as discussed in BZN **65**(1) and **65**(2). Apparently there is no perfect solution and I do not intend to anticipate the decision of the Commission. However, if *D. melanogaster* is to be accepted as type species of the genus *Drosophila*, the name of the present subgenus *Drosophila* (based on *Musca funebris* Fabricius, 1787) has to be changed at the same time. This nomenclatural act needs a comment.

Apparently no suitable genus-group name, other than *Drosophila*, has ever been used for the present type species *D. funebris.* The only available name, *Oinopota* Kirby in Kirby and Spence, 1815, is based on *Musca cellaris* Linnaeus, 1758. Type material of *M. cellaris* does not exist. Although Meigen (1830) considered *M. cellaris* synonymous with *M. funebris* Fabricius, 1787, most subsequent authors have not accepted this synonymy and *M. cellaris* is considered a nomen nudum (e.g. Brake & Bächli, 2008). Moreover *M. cellaris* was not originally included in *Drosophila* and, in my opinion, cannot become the type species of the taxon currently known as *Drosophila* s.str.

There are several genus-group names used for various subordinate taxa of the present genus *Drosophila.* The names *Idiomyia* Grimshaw, 1901 and *Hypenomyia* Grimshaw, 1901 should not be taken into consideration; they have been used for endemic Hawaian species now considered by many authors, including Brake &

Bächli (2008), to belong to the genus *Idiomyia* Grimshaw, although this arrangement is not unequivocally accepted. Consequently the two names used by Duda, 1923 are the candidates. In the application (BZN **64**(4): 239), the name *Chaetodrosophilella* Duda, 1923 (p. 40) is suggested for the present subgenus *Drosophila* (anticipated there to be raised to the genus level). However, *Chaetodrosophilella* has been used as a valid name only once before, notably for the group based on, and including only, *Drosophila quadrilineata* de Meijere, 1911 from southeast Asia and Micronesia, and has already been replaced by *Chaetodrosophila* Duda, 1924a in his subsequent publication. Therefore I do not consider it very suitable for a subgenus of several hundred species. The other genus-group name used by Duda, 1923 (p. 47) is *Spinulophila.* Duda soon transferred to *Spinulophila* the common cosmopolitan species *immigrans* Sturtevant, 1921 (misidentified as '*tripunctata* Loew, 1862: Becker, 1908' by Duda, 1924a, but recognized as '*D. immigrans* Sturtevant ?' by Duda, 1924b), which is often used as an object of genetic, physiological and ecological research, and the term '*immigrans* group' has been commonly used for more than sixty years (Sturtevant, 1942) for a group currently comprising almost 100 species. The '*immigrans* group' is close to the '*funebris* group' and all taxonomic treatments show that they are congeneric. Furthermore *Spinulophila* has been, from the very beginning, used for a group which is not monotypic.

Other genus-group names used for subordinate taxa of the present *Drosophila* (*Acrodrosophila* Duda, 1924a, *Spinodrosophila* Duda, 1924a, *Sordophila* Wheeler, 1949, disregarding unjustified emendations) are younger. They are also apparently disqualified because they represent groups of one to several species limited to one of the zoogeographical regions (considering the Holarctic region as a single unit). The same applies to the names presently used for the other extant subgenera of *Drosophila,* which moreover represent taxa unrelated to *Drosophila funebris.*

In summary: if the name *Drosophila* were to be used for the genus based on *D. melanogaster* Meigen, 1830, I suggest giving the present subgenus *Drosophila* the name *Spinulophila* Duda, 1923 (although this name does not have page priority over *Chaetodrosophilella* Duda, 1923), mainly because *Spinulophila* originally represents a well known group of numerous species, including one cosmopolitan species and several others important for genetic research, the group being clearly congeneric with *D. funebris* (Fabricius, 1787), type species of *Drosophila*.

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Comment on the proposed conservation of AULACOSCELINAE Chapuis, 1874 (Insecta, Coleoptera, ORSODACNIDAE or CHRYSOMELIDAE)
(Case 3398; see BZN **65**: 97–105).

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Despite having studied Greek and Latin in High School and been good at those, I prefer the traditional approach and I am 100% for MAGASCELINAE, LAMPROSOMINAE and AULACOSCELINAE, so I support this proposition.

Comment on the proposed precedence of the generic name *Ataenius* Harold, 1867 over *Aphodinus* Motschulsky, 1862 (Insecta, Coleoptera)
(Case 3377; see BZN **64**: 39–42; 123; **65**: 307–309)

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I strongly support the conservation of the name *Ataenius* Harold, 1867 because changing a name for one of the largest genera of SCARABAEIDAE, that is amongst the most frequently used scarab names in the taxonomic, ecological and applied literature and has even been adopted as a common name for an important pest species, would cause widespread confusion. This confusion would be even more severe since its senior synonym, *Aphodinus* Motschulsky, 1862 shows only a one letter difference to an even more frequently used scarab name, *Aphodius* Illiger (with counts for 186 references between 2002 and 2008 in Zoological Record, searched on 28 December 2008).

Ataenius has continuously and frequently been used since its description. Howden & Smetana's (BZN **64**: 40) statement that this name has been used in at least nine papers since the synonymy between *Aphodinus* and *Ataenius* was established by Dellacasa et al. (2001) is an underestimate. A list of 126 papers using *Ataenius* as valid between 2002 and 2008 is held by the Secretariat. Howden & Smetana (BZN **64**: 40) also state that *Ataenius* has a history of use in over a hundred references. Since this name has been used at least 126 times during the last eight years alone, this estimate is likely to be wrong by an order of magnitude. *Aphodinus* Motschulsky has obviously not gained recognition in the scientific community. It has apparently been noted but deliberately rejected by leading taxonomists. Stebnicka (2007) lists *Aphodinus* as a senior synonym of *Ataenius* but considers it incorrectly as a nomen oblitum. Smith & Skelley (2007, p. 33) also list *Aphodinus* as an older synonym, and likewise use *Ataenius* as valid. Ratcliffe & Paulsen (2008) cite both those publications but do not even mention *Aphodinus* and use *Ataenius* as valid. The only authors to consider *Aphodinus* Motschulsky as valid with '*Ataenius* Harold, 1867: 100 *(partim)*' as a junior synonym are Dellacasa et al. (2001, p. 36) but they are unsure whether the type species of *Aphodinus* is congeneric with the type species of *Ataenius*, and one of them expressed support for Case 3377 in a comment in BZN **65**: 307–308.

Fifteen references documenting use in the taxonomical literature were given in the Application (BZN **64**: 40) and the leading authority on this taxon, Z. Stebnicka, indicates about 150 taxonomical references in her comment (BZN **64**: 123). *Ataenius* is frequently mentioned in the ecological literature also (e.g. Deloya et al., 2007; Koller et al., 2007; Steinbauer & Weir, 2007; Utz et al., 2007; Horgan, 2008; Pawson et al., 2008). *Ataenius spretulus* (Haldeman) is a common turfgrass pest in Ontario and the United States, reported from 41 states and causing damage on golf courses in at least 23 states (Tashiro, 1987; Jo & Smitley, 2006) resulting in an extensive body of applied literature, e.g. Weaver & Hacker (1978), Vittum (1995, p. 35), Kido et al. (1996, p. 12), Smitley & Davis (1999, p. 53), Labonte (2002), Dreistadt et al. (2003, p. 2), Koppenhöfer et al. (2004, p. 88), Williamson et al. (2005, p. 803), Baghzouz et al. (2006, p. 4139), Ontario Ministry of Agriculture Food and Rural Affairs (2008, p. 4). *Ataenius* has even been adopted as a common name in the form of 'black turfgrass ataenius'/ 'black turfgrass Ataenius' or 'BTA' in the pest control literature (e.g. Grewal, 1999, p. 288; Willmott, 2000; Rogers & Potter, 2002, p. 12; Fresenburg et al., 2003: 7; Hodgson, 2007, pp. 1–2 and most other references mentioned in this paragraph) and has been approved as common name by the Entomological Society of America (Werner, 1982, p. 7; Bosik, 1997, p. 13). *Ataenius* is not only a commonly used name in pest control, but some *Ataenius* species are threatened and have entered the conservation literature. *Ataenius superficialis*, the Big Pine Key Dung Beetle, and *A. woodruffi*, Woodruff's Dung Beetle, were listed by the IUCN as vulnerable and endangered, respectively (Groombride, 1993, p. 171). These and other *Ataenius* species are used in the conservation and planning literature (Woodruff & Deyrup, 1994a–f; Deyrup, 1994; Drewry, 1994; MacAllister & Harper, 1998, p. 26; Mazzotti et al., 2002; Scott, 2003, p. 72).

The change of such a widespread name because of a subsequent type species designation in another genus causing *Ataenius* to be a junior subjective synonym should be avoided, particularly since one of the authors of this designation does not appreciate its consequences. Had Dellacasa et al. (2001) chosen another one of the originally included species, *Aphodius compacticollis* Motschulsky, as type species, *Ataenius* would not be threatened. Asking the Commission to use its plenary power to change the type species of *Aphodinus* to *A. compacticollis* would mitigate, but not solve the problem. *Ataenius* would no longer be threatened but the well-established though less frequently used genus-group name, *Aganocrossus* Reitter, 1895, would be instead. *A. compacticollis* was claimed to be a senior synonym of *A. urostigma* Harold, 1862 (Kozhantshikov, 1916, p. 192) which belongs to this subgenus or genus. However, this synonymy needs revision (Bordat & Dellacasa, 1996, p. 148). With the taxonomy of *A. compacticollis* being unresolved, changing the type species of *Aphodinus* is no feasible alternative to Howden & Smetana's original proposal (BZN **64**: 40).

Branco & Dellacasa (BZN **65**: 307–308) supported maintaining *Ataenius* as a valid name but claimed that it was threatened by another senior synonym, *Auperia* Jacquelin-Duval, 1857, because the type species of this genus, *Scarabaeus stercorator*, designated by Dellacasa himself in 1988, is currently included in *Ataenius*. However, Dellacasa's type species designation is invalid. *Auperia* was introduced by Jacquelin-Duval (1857, p. 50) as replacement name for '*Euparia*, Erichs., Arch. f. Naturg., 1847, I, 110' on the grounds that the name *Euparia* had been used before by Le Peletier de Saint-Fargeau & Serville and the name *Euparius* by Schönherr. However, *Euparius* is not a homonym of *Euparia* (Article 56.2), and Erichson (1847, p. 110) did not

describe a new genus *Euparia*, but simply used '*Euparia* Lepell. et Serv. Encycl. meth. X. 1825' in which he described two new species. There is no genus '*Euparia* Erichson', only *Euparia* Le Peletier de Saint-Fargeau & Serville. Since the author is not part of the scientific name (Article 51.1) but only a bibliographic reference, *Euparia* as used by Erichson as subsequent user (Article 51.2.1) is actually *Euparia* Le Peletier de Saint- Fargeau & Serville, thus *Auperia* Jacquelin-Duval being a replacement name for the latter. According to Article 67.8 *Auperia* Jacquelin-Duval, as a replacement name, has the same type species as the genus is is intended to replace. The type species of *Euparia* Le Peletier de Saint-Fargeau & Serville is *Euparia castanea* Le Peletier de Saint-Fargeau & Serville, 1828, by monotypy (Le Peletier de Saint-Fargeau & Serville, 1828, p. 357). The type species of *Auperia* Jacquelin-Duval is the same. It is irrelevant that *Auperia* was an unnecessary replacement name since Article 67.8 applies to all nomina nova. Therefore, *Auperia* is a junior objective synonym of *Euparia* and does not threaten *Ataenius*.

Stebnicka (2002, p. 742) erroneously considered *Auperia* Jaquelin-Duval a nomen nudum although it was introduced as a replacement name, hence fulfilling the requirements of Article 12.2.3 to be available by indication. She uses the name *Auperia* Chevrolat, 1864 as valid and she designates *A. denominata* Chevrolat, 1864 as its type species (according to Article 70.3). However, Chevrolat (1864, p. 413) did not describe a new genus but referred to Jacquelin-Duval's *Auperia* ('*Auperia stercorator* Jac. Duval, loc. cit., p. 117'). There is no '*Auperia* Chevrolat' and Stebnicka's type species designation is invalid since it relates to *Auperia* Jacquelin-Duval the type species of which is determined by the type species of the name it was supposed to replace (Article 67.8). No action of the Commission is required relating to the genus-group name *Auperia*. Consequently, Branco & Dellacasa's other requests (BZN **65**: 308) are also unnecessary.

I suggest that the Commission votes on Howden & Smetana's original requests (BZN **64**: 40) with the only correction that, as indicated by Branco & Dellacasa (BZN **65**: 307), the type species of *Ataenius* was first designated by Chapin (1940) and not Cartwright (1974).

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Comments on the proposed conservation of *Buettneria* Case, 1922 (Amphibia)

(Case 3420; see BZN: **64**: 252–254, **65**: 60–62, 217–219, 310–314)

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I oppose the petition of Lucas et al. for the Commission to use their plenary power to conserve *Buettneria* Case, 1922 in preference to either of the senior homonyms. Both the initial proposal to conserve *Buettneria* Case, 1922 and the comments supporting this proposal ignore the full content of Article 23.9.1 of the Code. This

includes Article 23.9.1.1 stating that a precondition for consideration is that the senior homonym has not been used as a valid name after 1899. *Buettneria* Karsch, 1888 (1889) was used by Ragge (1962) and *Buettneria* Simroth, 1888 was used by Van Goethem (1975 et seq.) and Schileyko (2002), as noted by Hausdorf (BZN **65**: 313). Thus neither of the senior homonyms of *Buettneria* is a nomen oblitum, and to conserve *Buettneria* Case, 1922 in preference to either would be to overturn Article 23.9.1.1. This in turn would be an effective statement that the Law of Priority no longer applies to infrequently studied taxa, of which there are many hundreds of thousands. I suggest that this wider implication should be given consideration by the Commission when they consider this issue. Article 23.9.1.1 exists in this explicit form to protect the priority of infrequently studied taxa. The proposal for conservation of *Buettneria* Case, 1922 uses the disingenuous but meaningless term 'virtual nomen oblitum' to describe *Buettneria* Karsch, 1888 (1889) to evade the basic issue that it is not a nomen oblitum and is protected by Article 23.9.1.1. In my view, Article 23.9.1.1 precludes all consideration of conservation of *Buettneria* Case, 1922.

Discrimination between the competing claims of *Buettneria* Karsch, 1888 (1889) and *Buettneria* Simroth, 1888 is a more legitimate topic for the Commission to consider and falls within the realms of opinion. My view is that i) Simroth himself replaced the name *Buettneria* with *Buettnerella* and that if, as original author, he felt it necessary to do this, this should have been respected by later workers; ii) when Van Goethem (1975) revived *Buettneria* Simroth, 1888, he failed to treat it as a nomen oblitum as it was under Article 23b.i in the prevalent (1964) edition of the Code of Nomenclature. In that edition of the Code, which would have still been operative in 1975, the fifty year rule defined nomina oblita. The history of *Buettneria* Karsch, 1888 (1889) may be brief but it is immaculate.

In conclusion, I support Mueller's (2007) published proposal that the junior homonym *Buettneria* Case, 1922 be replaced by its junior synonym *Koskinonodon* Branson & Mehl, 1929. My preference would be for the seniority of *Buettneria* Karsch to be recognised, but under Article 23.9.1.1 both of the senior homonyms have a stronger case than Case's juniormost homonym.

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As a zoologist working on invertebrates, I feel belittled by the nature of the arguments put forth in favour of conserving the name *Buettneria* Case, 1922, against *Buettneria* Simroth, 1888. The technical arguments have by now been, in my opinion, adequately addressed in the comments published on this case. At face value, the number of usages is indeed overwhelmingly in favour of *Buettneria* Case, 1922, but I would argue that this comparison is unfair. We have, on one hand, a fossil vertebrate from the land of plenty, North America, and on the other hand, a land snail from the heart of Africa. It does not take a diviner or advanced bibliometrics to predict that the former will get considerably more attention than the second. When measured by museum exhibits, graduate courses, and scientific expertise available, the land snails are bound to lose against vertebrates. The name *Buettneria* Simroth, 1888, accounts for a minuscule number of usages not because it is a 'virtual nomen

oblitum', but simply because it is the fate of most invertebrate taxa to attract very limited attention. The urocyclids are a very diverse family of semi-slug land snails in Africa south of Sahara, with hundreds of described species and certainly hundreds more to be described. Yet, the monographs of the family by van Goethem (1977) and van Mol (1970), now over 30 years old, have barely been outdated by subsequent additional publications. In the case of *Buettneria leuckarti* Simroth, 1888, the type species described from Angola, no field work has been carried out in that country for decades because of the civil war and insecurity.

There is no article in the Code that says that the name of a bird or a primate should have priority over the name of a mite or a snail. The name *Buettneria* Simroth, 1888, has not been rediscovered as a result of book archaeology. Instead, it was captured by nomenclators, it appeared in relevant treatises and textbooks, and it was used by the zoologists when they had to deal with the taxon the name applies to. Vertebrate palaeontology survived the name *Brontosaurus* giving way to *Apatosaurus*, so I see no reason why *Buettneria* Simroth, 1888 should now be displaced by *Buettneria* Case, 1922.

Additional reference

Van Mol, J.J. 1970, Révision des Urocyclidae (Mollusca, Gastropoda, Pulmonata). Anatomie – Systématique – Zoogéographie. 1ère partie. *Annales du Musée Royal de l'Afrique Centrale, Sciences Zoologiques*, **180**: 1–234.

Comment on the proposed precedence of *Anolis chrysolepis* Duméril & Bibron, 1837 (Reptilia: Squamata) over *Draconura nitens* Wagler, 1830

(Case 3446; see BZN **65**: 205–213)

John E. Cadle

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As a taxonomist actively studying the systematics and biogeography of South American reptiles, I strongly support the proposal by Myers (BZN **65**: 205–213) that the Commission use its plenary power to give the name *chrysolepis* Duméril & Bibron, 1837 (published as *Anolis chrysolepis*) precedence over the name *nitens* Wagler, 1830 (published as *Draconura nitens*) when the two names are considered synonyms. The name *nitens* Wagler (1) cannot be unambiguously applied to any known taxon; (2) has been applied to diverse populations spread across a large region of South America; (3) is not tied to a specific taxon because its type specimen has been lost; and (4) perhaps applies to a forgotten lizard species with a distinctive colour pattern unknown in any of the forms of *Anolis chrysolepis*. *D. nitens* Wagler is a nomen dubium as defined by the Code. In contrast, the name *chrysolepis* (1) unambiguously applies to a particular taxon and has an extant lectotype; (2) has been in use for nearly the same amount of time as the name *nitens*; and (3) was used in a landmark taxonomic revision that applied the concept of refugia to South America; the name was subsequently used in nearly half a century of literature on South American biogeography as well as other systematic studies. For these reasons, *Anolis chrysolepis* should have precedence over *Draconura nitens* when the two names are considered synonyms.

Comments on the proposed precedence of *Chelodina rugosa* Ogilby, 1890 (currently *Macrochelodina rugosa*; Reptilia, Testudines) over *Chelodina oblonga* Gray, 1841

(Case 3351; see BZN **63**: 187–193, **64**: 68, 127–128, **65**: 62)

(1) Otto Kraus

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Having studied the original application as well as succeeding comments, including J.M. Savage's views, I strongly support the original proposals submitted by S.A. Thomson (BZN **63**: 187–193). Historical confusion in the application of names for turtles in various regions of Australia and Papua was, and still is, primarily caused by unresolved problems in taxonomy. This is illustrated by the fact 'that half of the species of turtles from Australia have been described since 1980, and all but one of these since 1994' (Thomson, 2007, BZN **64** 128). The taxonomy of populations in Northern Australia and Papua still needs clarification. Under such conditions and as already stated by U. Fritz (BZN **65**: 62), the artificial attempt to conserve previous usage by a neotype selection would simply conserve a single case within a whole series of historical misapplications (and affect the status of the name *Macrochelodina* Wells & Wellington, 1985). The original application combines a minimum of nomenclatural change with a maximum of future taxonomic freedom.

(2) Arthur Georges

Institute for Applied Ecology, University of Canberra, ACT 2601, Australia (e-mail: georges@aerg.canberra.edu.au)

I am writing in support of the proposed precedence of *Chelodina rugosa* Ogilby, 1890 over *Chelodina oblonga* Gray, 1841. Further, I support usage of the available name *Chelodina colliei* Gray, 1856 for the species known as *Chelodina oblonga* Gray, 1841 that has been misapplied for the past 40 years.

Savage (BZN **64**: 68) suggested in his application to the Commission to set aside all previous designations of a type specimen for *Chelodina oblonga* Gray, 1841 and to designate as its neotype BMNH 1947.3.5.91, the lectotype of *Chelodina colliei* Gray, 1856.

Recent work in our lab, contained in the recently submitted Ph.D. thesis of Erika Alacs and soon to be published, shows two quite divergent clades within what is currently regarded as *Chelodina rugosa* Ogilby 1890. One distinct clade has a geographic range covering much of the northern territory, and almost certainly includes the type locality of *Chelodina oblonga* Gray, 1841. The other distinct clade has a geographic range covering southern New Guinea and Cape York, which includes the type locality of *Chelodina rugosa* Ogilby, 1890. I do not regard the populations containing these divergent mitochondrial haplotypes as biological species, but it certainly opens the real possibility that they may be demonstrated to be so in future studies involving a broader range of genetic and morphological markers.

This presents a clear problem if the solution suggested by Savage (BZN **64**: 68) is adopted. Two named taxa with type specimens drawn from the same biological species would be undesirable in our view, and the possibility should not be admitted.

The proposition by Thomson is sensible in that it eliminates the problem as outlined above, and gives appropriate recognition to the person who originally described the south-western Australian species as *Chelodina colliei* Gray, 1856 (used for 136 years). Thomson's Case 3351 and Comment in BZN **64**: 127–128 are reasonable and provide the best solution to this nomenclatural problem.

Comments on the proposed conservation of usage of *Testudo gigantea* Schweigger, 1812 (currently *Geochelone (Aldabrachelys) gigantea*; Reptilia, Testudines)
(Case 3463; see BZN **66**: 34)

(1) George R. Zug

Department of Vertebrate Zoology, National Museum of Natural History, Smithsonian Institution, Washington DC, 20013–7012 U.S.A. (email: zugg@si.edu)

I support the application of Frazier to conserve *Geochelone gigantea* Schweigger, 1812 by the acceptance of a neotype designation. Frazier (2006a, 2006b) detailed the confusion and nomenclatural instability that has resulted from Bour's (1982) proposal of *Dipsochelys.* While some turtle systematists have followed Bour's proposal, others have not, and the general biological community, especially ecologists and herpetoculturists, have continued to use *Geochelone gigantea* or *Aldabrachelys gigantea.* Given the uncertainty regarding the specific identity of the type, which was poorly illustrated, Bour upset nomenclatural stability of the Aldabran giant tortoise by his failure to follow the principle of the earlier Code (1961 – Article 23b(iii)) to request an evaluation by the Commission on the advisability of changing the widely used (i.e. outside the turtle community) name *Geochelone gigantea* that had instant recognition by the public and biologists for nearly three-quarters of a century. Frazier's (2006a) designation of a neotype fixes the name *Geochelone gigantea* Schweigger to the giant tortoises of Aldabra. The discovery of Schweigger's purported type specimen (Bour, 2006) immediately followed the designation of the neotype, and the publication of this discovery continues to foster nomenclatural confusion. The chain of evidence for the purported holotype has too many uncertainties, and these will continue to cause arguments on the assignment of the nomen *gigantea* whereas the acceptance of the neotype designation resolves the problem and promotes nomenclatural stability.

(2) Katy Beaver

Plant Conservation Action group & L'Ilot, Glacis (or PO Box 392), Victoria, Mahe, Seychelles (e-mail: kbeaver@seychelles.net)

I would like to support the petition to conserve the name of the Aldabra tortoise as *Testudo gigantea.*

As secretary of the Science Committee of the Seychelles Islands Foundation (which manages Aldabra Atoll) for some years, it was often frustrating to find so many names given to this animal icon of the atoll. The use of the specific name *gigantea* I support unreservedly.

In education and awareness work, which I am much involved with, in particular for local people and for tourists, it has been a constant headache to know how or

what to call the Giant Tortoise, which is important both in local culture and history, and also as a famous and prominent animal found in Seychelles. Sometimes it is not necessary to use a Latin name, but when this information is given for all other species in the text, it seems odd not to put one for the Giant Tortoise. Most people cannot fathom why there should be so much fuss made over a Latin name, and the fact that there have been so many different names is quite an embarrassment! For the sake of sanity as well as science I welcome this petition and fully support it.

(3) Karen A. Bjorndal

Department of Zoology, PO Box 118525, University of Florida, Gainesville, FL 32611, U.S.A. (e-mail: kab@zoology.ufl.edu)

I support the petition to conserve the specific name *Testudo gigantea* Schweigger, 1812, for the Aldabra tortoise. I agree with Frazier that *T. gigantea* is the established name. As explained in Case 3463, it has been in continuous use for more than 100 years and has been widely used in the scientific literature. It is important to settle this nomenclatural issue because there has been considerable confusion since 1982. The neotype for *T. gigantea* (USNM 269962) that was designated in 2006, should be maintained.

(4) Charles R. Crumly

University of California Press, 2120 Berkeley Way, Berkeley, CA 94704 USA. (e-mail: chuck.crumly@ucpress.edu)

I write in strong support of the petition by Jack Frazier to conserve the usage of *Testudo gigantea* Schweigger, 1812 by the designation of a neotype. Further, I agree that *Testudo dussumieri* Gray, 1831 should be suppressed.

The arguments of Frazier are compelling, logical, well-reasoned, and will result in the least amount of confusion – especially among scholars unfamiliar with the ancient, arcane, difficult to interpret and sometimes difficult to access literature. The most obvious advantage of adopting Frazier's application is the stabilisation of a name familiar and in wide use for over 100 years. In the last 25 years, great confusion has prevailed, partly caused by those that support a name other than *gigantea* for the Aldabra tortoise. Indeed, those that have rejected *gigantea* have, with equal misplaced certainty, suggested significantly different flawed proposals.

The need to stabilise the name for the Aldabra tortoise is becoming more and more serious due to the potential risk of extinction. The only extant population is on a remote and isolated island and is vulnerable. Hypothesised sea level changes represent a real threat to a low lying island such as Aldabra. Maintenance of the neotype with its documented collection locality on Aldabra is the most convenient and least ambiguous means by which to preserve the best name for Aldabra tortoises. The usage of *Testudo gigantea* Schweigger, 1812 for the Aldabra tortoise is obvious, appropriate and least disruptive, and should be conserved.

(5) Indraneil Das

Institute of Biodiversity and Environmental Conservation, Universiti Malaysia Sarawak, 94300 Kota Samarahan, Sarawak, Malaysia
(e-mail: hamadryad2004@hotmail.com)

I am writing in support of the petition by J. Frazier to conserve the specific name *Testudo gigantea* Schweigger, 1812, in the interest of nomenclatural universality and stability. The nomen *Testudo gigantea* for the Aldabra tortoise, a species of great conservation concern, has been in use for over a century. Thus, resurrection of the nomen oblitum *Testudo dussumieri* Gray, 1831 and invalidation of neotype designation for *T. gigantea* is not deemed worthy of support, particularly since the rediscovery of the supposed holotype is not unequivocally proven.

(6) A.W. Diamond

Wildlife Ecology, University of New Brunswick P.O. Box 4400, Fredericton, NB, Canada E3B 5A3 (e-mail: diamond@unb.ca)

I write briefly in support of the case made by J. Frazier for the conservation of the specific name *Testudo gigantea* Schweigger 1812 and suppression of *Testudo dussumieri* Gray 1831.

I have read J. Frazier's case carefully in its entirety, and am impressed by the rigour with which he has navigated what can only be described as the tortuosities of tortoise nomenclature. His credentials are impeccable and his case incontrovertible.

Great confusion has been caused in this area recently and there is a clear need to set the record straight as J. Frazier proposes.

(7) Clive Hambler

Department of Zoology, University of Oxford, South Parks Road, Oxford OX1 3PS, U.K. (e-mail: clive.hambler@zoo.ox.ac.uk)

I very strongly support the petition from Frazier to stabilise the nomenclature of this species in the relatively straightforward way proposed, using USNM 269962 as the neotype of *T. gigantea.*

The species name *gigantea* is very widely used, far more than any alternatives, and has been for decades. Almost all the ecologists who work on this species, including myself, have used and still use the name *Geochelone gigantea* (e.g. Bourn et al., 1999). There has been very unwelcome confusion in some quarters about the name, with proposals to use *Dipsochelys elephantina* or *Dipsochelys dussumieri*, although most experts on the ecology of the species have ignored this. The confusion was exacerbated by the failure of some authors to appreciate phenotypic plasticity in the species.

As the petition demonstrates there have been a number of proposed name changes, which hopefully will not be adopted and all of which I have ignored (fortunately, as it proves). To minimise further confusion, I advise people to continue to use *gigantea* unless there is an overwhelming reason not to. I would be far more at ease with a proposed change of generic name (if taxonomic evidence became strong enough) than a different species name.

As an ecologist and conservationist, I want strong links to be retained between the diverse publications on this species which is IUCN Red Listed and which arouses wide public interest. I have used the name *Geochelone gigantea* for several references to this species in my own textbook on conservation (Hambler, 2004, pp. 7, 361) and

other publications (Hambler et al., 1985, 1993; Hambler, 1994; Linfield et al., 1993; Seaward et al., 1996). Both editions of a major student textbook on biogeography (Whittaker, 1998, 2007) also use this name. It is readily apparent that the species name *gigantea* is embedded in a wide range of literature from different biological disciplines which students may encounter early in their studies.

In addition to literature which is easy to find the name *gigantea* is used in a number of unpublished reports from British university student expeditions (e.g. from Oxford in 1983, 1988, 1990 and Southampton in 1982), available from the Royal Geographical Society (with the Institute of British Geographers) and in various university libraries.

In teaching at undergraduate level and above, and in conservation literature, I advise that until there is a decision from the Commission it is highly desirable to continue to use *gigantea*; this will make links between publications, and ecological progress, much easier for students and practitioners. It is not in the interests of education or biology to maintain the current volatility which has already gone on too long. To my mind, the main value of pointing students towards the other names is as an illustration of the great intricacies of some scientific and nomenclatural controversy.

Additional references

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Whittaker, R.J. 1998. *Island biogeography: ecology, evolution and conservation.* xi, 285 pp. Oxford University Press, New York.

Whittaker, R.J. & Fernández-Palacios, J.M. 2007. *Island biogeography: ecology, evolution and conservation.* 2nd ed. xii, 401 pp. Oxford University Press, New York.

(8) Thomas Leuteritz

Monitoring and Assessment of Biodiversity Program, National Zoological Park, Smithsonian Institution, 1100 Jefferson Drive SW, Suite 3123, Washington, DC 20560–0705, U.S.A. (e-mail: tejl@hawaii.edu)

I support the proposed conservation of usage of the specific name *Testudo gigantea* Schweigger, 1812, by maintenance of a designated neotype, and suppression of *Testudo dussumieri* Gray, 1831. I agree with Frazier (BZN **66**: 34) that *T. gigantea* is

the established name for the Aldabra tortoise (i.e. it has been in continuous use for over 100 years, and it has been recognised as the oldest name for the Aldabra tortoise for more than 50 years). Furthermore, as Frazier documented, there has been much nomenclatural chaos, and it is necessary to stabilise the nomenclature of the Aldabra tortoise.

(9) Nirmal Jivan Shah

Nature Seychelles, P.O. Box 1310, The Center for Environment and Education, Roche Caiman, Mahe, Seychelles (e-mail: nature@seychelles.net)

We wish to support the petition by Jack Frazier. We strongly recommend that *Testudo gigantea* be used to refer to the Aldabra Giant Tortoise. We note that this is the name Gazetted by the Seychelles Government in 'Wild Animals (Giant Land Tortoises) Protection (Amendment) Regulations (1999. S.I. 39 of 1999)'.

T. gigantea has been used for over 100 years in hundreds of publications thus proving it is the established name. The current confusion in nomenclature caused by only a few authors is proving to be more than a nuisance and hindering progress in science and conservation. It is therefore a high priority to have one established name for the Aldabra Giant Tortoise. We believe it would be parsimonious to standardise the name as *Testudo gigantea.*

(10) James B. Murphy

Department of Herpetology, National Zoological Park, Smithsonian Institution, Washington, DC 20560–0705, U.S.A. (e-mail: jbmurphy2@juno.com)

Please consider my comments on Case 3463: (1) *Testudo gigantea* is the established name for the Aldabra tortoise (i.e. it has been in continuous use for over 100 years, it has been recognised as the oldest name for the Aldabra tortoise for more than 50 years, it is widely used in the literature, etc.; (2) there has been nomenclatural chaos, particularly since 1982; (3) it is necessary to stabilize the nomenclature and fix the name of the Aldabra tortoise and (4) the simplest way to achieve this is by maintaining the neotype for *T. gigantea* (USNM 269962) that was designated in 2006.

(11) Ian R. Swingland

Ultra Green Group, Singapore; Conservation Research & Development, Mauritius; Sustainable Forestry Management, London; Moulin Vert, Normandy; DICE, Kent; Earthwatch Institute, Boston and Oxford; Darwin Initiative, UK Government, London; Herons Hall, Nash, Canterbury, Kent CT3 2JX, U.K.
(e-mail: ian@herons-hall.co.uk)

I fully support the retention of the name *Geochelone gigantea* for two reasons: i) it must retain a common usage stability which is allowed within the ICZN rules, and ii) I am tired of constant changes being made to the name as though it was a game, no doubt for very legitimate taxonomic reasons. The arguments and precedents and parsimony analysis may have produced all sorts of errors in the past but there are

many other scientists working on the chelonians in ecology, behaviour, genetics, population studies, and other aspects of their biology who find all this indecision and constant changing of the Latin binomial very unhelpful to the science or the conservation of the species. I will always use *Geochelone gigantea* as a matter of principle and clarity however erroneous that is. We know what species we are dealing with here and there is no risk of confusion to misdirect conservation efforts; I must say the idea of fiddling about with names, when tortoises are burning and could use our taxonomic help, I find very distasteful. I worked on this species for 10 years, two of which I lived on Aldabra Atoll. I was later the Founding Chairman of the IUCN SSC Tortoise Specialist Group, and then Director of the First World Congress of Herpetology. Please accept my total support for this move to retain the original name in common usage.

(12) David Bourn

Food and Agriculture Organization of the United Nations, 29th Floor, Yuchengco Tower 1, RCBC Plaza, 6819 Ayala Avenue, Makati City 1200, Metro Manila, Philippines (e-mail: david.mackenzie.bourn@gmail.com)

As a long-standing participant in various field studies of tortoises on Aldabra Atoll, Seychelles, I am pleased to support the above petition by Jack Frazier of the Smithsonian Institution. In my considered opinion, the continuing nomenclatural uncertainty has prevailed for far too long, and needs to be resolved as soon as possible to avoid perpetuating further ambiguity and confusion.

(13) Oguz Turkozan

Adnan Menderes Universitesi, Fen Edebiyat Fakultesi, Biyoloji Bolumu, 09010 Aydin, Turkiye (e-mail: oguzturkozan@yahoo.com)

I support the proposal to conserve the name of the Aldabra tortoise, *Testudo gigantea* Schweigger, 1812, for the following reasons: while *T. gigantea* is the established name for the Aldabra tortoise (i.e. it has been in continuous use for over 100 years and has been recognised as the oldest name for the Aldabra tortoise for more than 50 years) there has been considerable nomenclatural instability since 1982. I consider necessary to stabilise the nomenclature by maintaining the neotype for *T. gigantea* (USNM 269962) that was designated in 2006.

(14) Jay M. Savage

Department of Biology, San Diego State University, San Diego, CA 92182–4614 U.S.A. (e-mail: savy1@cox.net)

I wish to fully support the application by Jack Frazier relating to the name *Testudo gigantea*. Previous authors have manipulated the evidence as it relates to this name to allow them to propose new ones. Many years of usage in this case should trump speculation as to the origin of the type specimen which in any case cannot definitely be identified.

(15) Gisella Caccone

YIBS-Molecular Systematics and Conservation Genetics Lab, ESC 140, Yale University, 21 Sachem Street, New Haven, CT 06520–8106, U.S.A.
(e-mail: adalgisa.caccone@yale.edu)

As a concerned scientist working for the past 20 years on evolutionary genetics and conservation of Giant Galapagos tortoises, both in Aldabra and Galapagos, I have been made aware that there is a case submitted to the Commission to fix the specific name of the Aldabra tortoises once and for all to *gigantea*.

I completely and enthusiastically support this case. It would be a great service to the scientific and management community if the name of the Aldabra tortoise were fixed and the obvious choice is the established / customary / accustomed name of *gigantea*.

In the past years there have been a series of names proposed and used which have confused the issue and misinterpreted and misused taxonomic rules. For those of us working on conservation issues this has rendered our efforts much less effective; we cannot protect what we cannot name and identify precisely.

I really hope that the Commission can decide in favour of case 3463.

(16) James F. Parham

The Field Museum of Natural History (Biodiversity Synthesis Center), 1400 S. Lake Shore Dr., Chicago, IL 60605, U.S.A.; and Department of Herpetology, California Academy of Sciences, 55 Music Concourse Drive, Golden Gate Park, San Francisco, CA 94118, U.S.A. (e-mail: jparham@fieldmuseum.org)

I support the petition described in Case 3463 to conserve the name *Testudo gigantea* Schweigger, 1812 for the Aldabra tortoise by retaining USNM 269962 as the neotype of this taxon and suppressing *Testudo dussumieri* Gray, 1831. There has been substantial nomenclatural chaos and confusion about what is the correct name for Aldabra tortoises. For over 100 years, the name *Testudo gigantea* was widely used for Aldabran tortoises. *Testudo gigantea* was designated as the type species of *Aldabrachelys* by Loveridge and Williams (1957) and the names *Geochelone gigantea* and *Aldabrachelys gigantea* remain the most widely used names for Aldabran tortoises today. This is despite the fact that Bour (1982) created confusion by claiming that the type of *Testudo gigantea* was certainly a Mascarene tortoise (genus *Cylindraspis*) and then later (Bour, 2006) claiming that it refers to a South American tortoise (genus *Chelonoidis*). The rediscovery of the holotype of *T. gigantea* is not unequivocally proven and will continue to provoke debate about the name and nomenclatural instability. Therefore the simplest solution is to maintain USNM 269962 as the neotype of *T. gigantea* and suppress *T. dussumieri* Gray, 1831, as recommended by Frazier (2006) and detailed in Case 3463.

(17) Anders G.J. Rhodin

Chelonian Research Foundation, 168 Goodrich St., Lunenburg, MA 01462 USA
Chair, IUCN/SSC Tortoise and Freshwater Turtle Specialist Group
(e-mail: rhodincrf@aol.com)

I support the petition by Frazier to conserve the names *Aldabrachelys* and *Testudo gigantea* for the Aldabra giant tortoise. Though strict adherence to the Code might require the name changes proposed by Bour and Gerlach, the question of the identity of the recently rediscovered purported holotype of *gigantea* makes these changes not only undesirable but also uncertain. Stabilising the nomenclature through acceptance of the unequivocally identified neotype of *gigantea* would resolve the confusion and uncertainty regarding this taxon. The name *gigantea* has been associated with Aldabra tortoises for most of the last 100 years and that stability needs to be conserved. Additionally, from a conservation perspective, destabilising the nomenclature of this threatened species (IUCN Red List status Vulnerable) increases its risk through obfuscation of its name, creating potential loophole exceptions in laws and regulations concerning its protection.

Comments on the proposed conservation of usage of *Archaeopteryx lithographica* von Meyer, 1861 (Aves) by designation of a neotype

(Case 3390; see BZN **64**: 182–184, 261–262; BZN **65**: 314–317)

(1) Zhonghe Zhou

Institute of Vertebrate Paleontology and Paleoanthropology, Chinese Academy of Sciences, Beijing 100044, China (e-mail: zhouzhonghe@ivpp.ac.cn)

I write to support Bock & Bühler's proposal to set aside the single feather holotype of *Archaeopteryx lithographica* in the Berlin and München Museums and to conserve the usage of *Archaeopteryx lithographica* von Meyer, 1861 (Aves) by designation of a neotype, BMNH 37001 in the Natural History Museum, London. The major reasons are as follows:

Firstly, hundreds of feathered dinosaurs have been found dating from the late Jurassic to Early Cretaceous of northeastern China in the last 15 years (Zhang et al., 2008), which indicates that presence of feathers can no longer be treated as a diagnostic character for birds, and it is possible that the holotype of *Archaeopteryx lithographica* von Meyer, 1861, represented by a single isolated feather, could be a different taxon from that now represented by several skeletal specimens referred to this species. I believe that stability is best served by conserving the usage of *Archaeopteryx lithographica* von Meyer, 1861 that has been widely known for about one and a half centuries; however, it also seems important and necessary to set aside the holotype feather and designate a neotype for this avian species.

Secondly, BMNH 37001 represents the first reported skeletal specimen of *Archaeopteryx lithographica* (Owen, 1863). This has been much more extensively studied and is possibly more commonly associated with the name than the holotype feather, so it should have the priority to be selected as the neotype specimen despite the fact that several other well preserved skeletons referrable to the same species are also known (Mayr et al. 2007).

Finally, I believe that if this proposal is accepted, it will clarify a long standing historical issue in avian taxonomy, and the isolated feather that is currently the holotype of *Archaeopteryx lithographica* will be regarded as a referred specimen of this species.

Additional references

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We support Bock & Bühler's proposal to set aside the holotype specimen of *Archaeopteryx lithographica* von Meyer, 1861 and to conserve this name by designating specimen BMNH 37001 in the Natural History Museum (the 'London specimen') as the neotype. We echo the comments in this regard made by Barrett & Milner (BZN **64**: 261–262) and add our opinion that, while a name is a useful tool, where usage is extensive, common sense is more important than hermetic bureaucracy. Vertebrate palaeontologists have for years effectively treated 'the London specimen' as the type of *Archaeopteryx lithographica* von Meyer, 1861; in any case it will likely never be possible to confidently determine whether the isolated feather (the current 'holotype' of this taxon) pertains to the same species. The Commission should make the sensible decision in this case.